

# DO NOW

Pick up Worksheet Do Now 1.1  
Complete this worksheet

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## 1.1 Translating English into the Language of Algebra

- Define: unknowns using a variable  
let "x ="

- If more than one item: use the same variable to identify all items

- ★ Look for a sentence that describes a relationship between the items

★ ★ ★ SEE CW 1.1-DAY 2 ★ ★

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1. Bob has  $n$  pets. Julius has <sup>3</sup> three more than <sup>2 times</sup> twice as many  <sup>$n$</sup>  pets as Bob. Express the number of pets Julius has in terms of  $n$ .

let  $n$  = Bob's pets

$$2n + 3 = \text{Julius' pets}$$

2. Sue is three times as old as Allen and Carol is three years younger than Allen. If Allen is  $x$  years old:

a. Represent the age of Sue let  $x$  = Allen's age  
 $3x$  = Sue's age

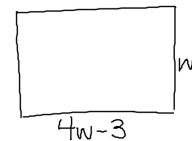
b. Represent the age of Carol  
 $x - 3$  = Carol's age

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3. The length of a room is three feet less than  <sup>$w$</sup>  four times its width. Draw a diagram that includes the expressions for length and width. Hint: Use  $w$  for width.

let  $w$  = width

$$4w - 3 = \text{length}$$



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4. Betsy has 327 bottles saved for recycling. If she adds a dozen bottles a week, represent the total number of bottles she has after  $x$  weeks.

let  $x$  = # of weeks

$$327 + 12x = \text{\# of bottles}$$

5. A liter of Gatorade cost 50 cents more than a liter of water. Represent the cost of 7 liters of Gatorade and 5 liters of water.

let  $x$  = cost of liter of water

$$x + 50 = \text{cost of liter of Gatorade}$$

$$\boxed{7(x + 50) + 5x}$$

7 liters Gatorade    5 liters water

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# HOMEWORK

Worksheet - HW 1.1 Day 2

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